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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,537	10/22/2004	Istvan Knoll	742111-159	6354
25570 7590 12/12/2007 ROBERTS, MLOTKOWSKI & HOBBS P. O. BOX 10064 MCLEAN, VA 22102-8064			EXAMINER ALI, MOHAMMAD M	
			ART UNIT 3744	PAPER NUMBER
			NOTIFICATION DATE 12/12/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Dbeltran@rmhlaw.com  
LGallagher@rmhlaw.com

# Office Action Summary

Application No.

10/501,537

Applicant(s)

KNOLL, ISTVAN

Examiner

Mohammad M. Ali

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 1-10, the phrase "may be" in claim 1 renders the claim s 1-10 indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action: ***Claim***

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Svoboda. Svoboda discloses a submerged evaporator with plate heat exchanger 5 contained in a casing (see Fig. 1-2) and including one integrated plate heat exchanger 5, where the integrated plate heat exchanger 5 has at least one inlet connection 6 and at least one outlet connection 7 for a secondary refrigerant (water brine, see enclosed translation), where the plate heat exchanger is disposed at the bottom of the casing, where a primary refrigerant flow around the plate heat exchanger 5 (see Fig. 1 and 2), and where the uppermost part of the casing is as a liquid separator, wherein the integrated plate heat exchanger 5 is integrated with the evaporator and made with an

outer contour that substantially follows the lower contour of the casing (see Fig. 2) and the liquid level of the primary refrigerant ; wherein the longitudinal sides of the plate heat exchanger are closed for inflow and outflow of the primary refrigerant between the plates of the plate heat exchanger, and wherein the bottom of the plate heat exchanger is provided at least one opening through which the primary refrigerant flows around the plates of the plate heat exchanger; a suction manifold 3; the suction manifold 3 is disposed in the dry part of the casing. See Fig. 1-2 and the enclosed translation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Svoboda. Svoboda discloses the invention substantially as claimed including guides plates disposed on the sides of the plate heat exchanger 5 except the guide plates are not separated from the plate heat exchanger but still serving the same purpose of the claimed invention; Svoboda does not disclose the specific angle of the guide grooves but as compares to the picture of the channels of the plate heat exchanger the guide grooves are at 90 degree angle in relation to the levels of the; Svoboda also does not disclose both the inlet and out let connection of the secondary refrigerant at upper part of the plate heat exchanger and two connections at the upper

edge of the plates and one connection at the bottom of the plate. The different position of inlet and outlet of the secondary refrigerant does not make any substantial difference from the one inlet at the upper plate and one outlet in the lower plate as taught by Svoboda. Therefore, it is an obvious choice of an ordinary skill in the art to choose a guide plate either separated from the heat exchanger plate or combined with the heat exchanger plate to guide the refrigerant towards the bottom part of the heat exchanger and since there is no criticality or unexpected result from it; similarly choosing the different configuration of the inlet and outlet of the secondary refrigerant is also an obvious design choice.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Svoboda in view of Ertinger (4,437,322). Svoboda discloses the invention substantially as claimed as stated above except the position of the condenser shaped second plate heat exchanger mounted in the dry part of the casing. Ertinger teaches the use of a second heat exchanger 17 disposed in side the dry part of the casing 14 in a submerged heat exchanger for the heat exchanging purposes. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

submerged evaporator of Svoboda in view of Ertinger such that the second heat exchanger or condense is disposed in dry part of the casing in order to make compact heat exchanger.

***Response to Arguments***

Applicant's arguments, see remarks pages 46, filed 11/05/07, with respect to rejection of claims 1-10 have fully considered and are persuasive.

However, upon further consideration, a new ground(s) of rejection is made in view of new prior art as explained above.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad M. Ali whose telephone number is 571-272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
MOHAMMAD M. ALI  
PRIMARY EXAMINER